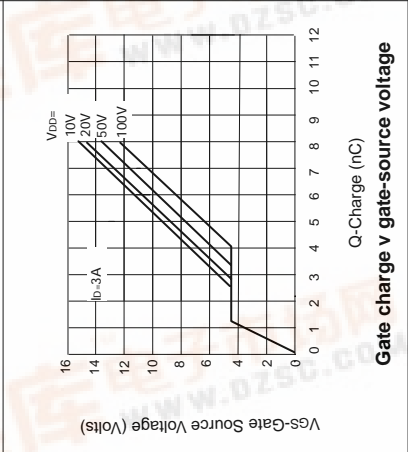
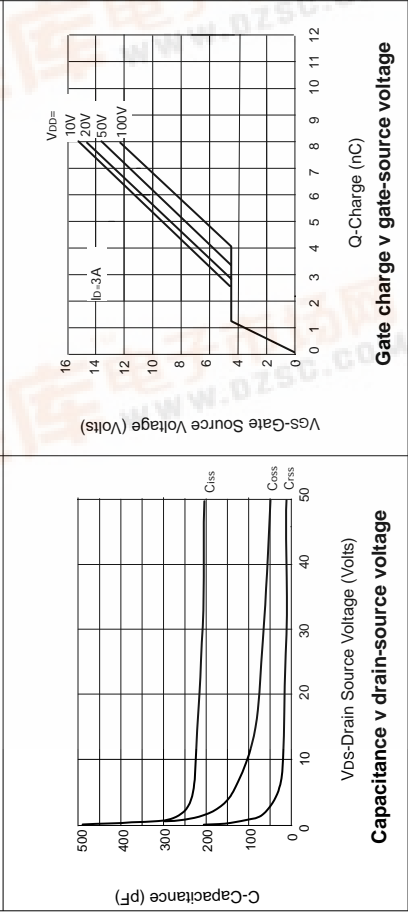
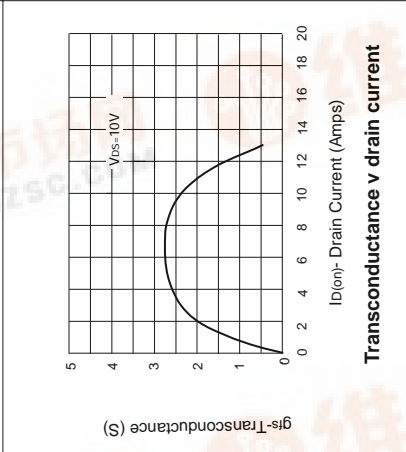
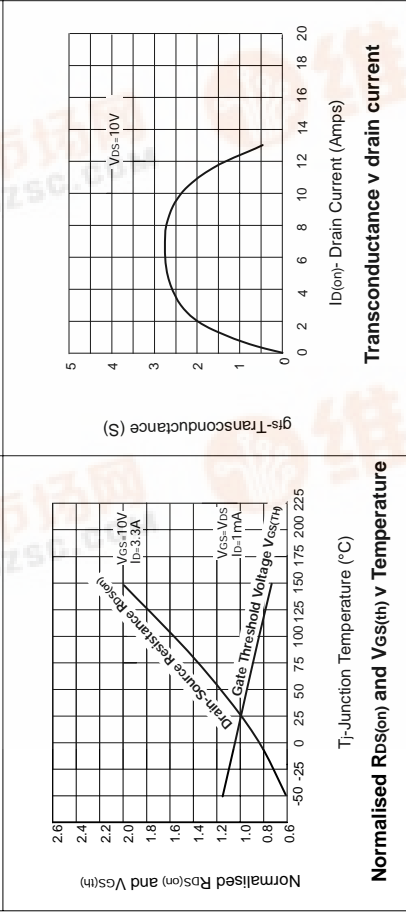
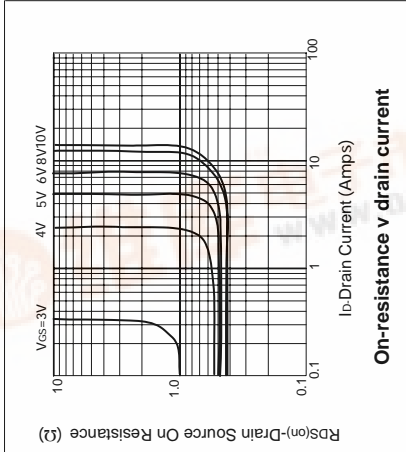
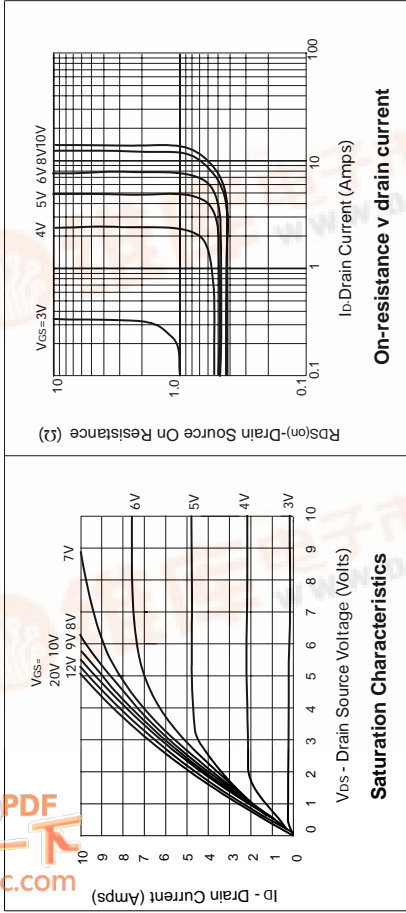


SOT223 N-CHANNEL ENHANCEMENT
MODE VERTICAL DMOS FET

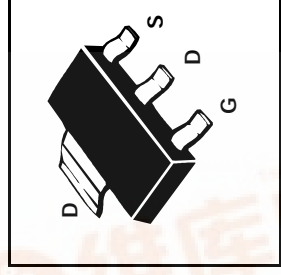
ISSUE 3 - FEBRUARY 1996

TYPICAL CHARACTERISTICS



FEATURES

- * Very low RDS(ON) = .54Ω
 - APPLICATIONS
 - * DC - DC Converters
 - * Solenoids/Relay Drivers for Automotive
- PARTMARKING DETAIL - ZVN4310



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Drain-Source Voltage	V _{DS}	100	V
Continuous Drain Current at T _{amb} =25°C	I _D	1.67	A
Pulsed Drain Current	I _{DM}	12	A
Gate Source Voltage	V _{GS}	± 20	V
Power Dissipation at T _{amb} =25°C	P _{TOT}	3	W
Operating and Storage Temperature Range	T _J ; T _{stg}	-55 to +150	°C

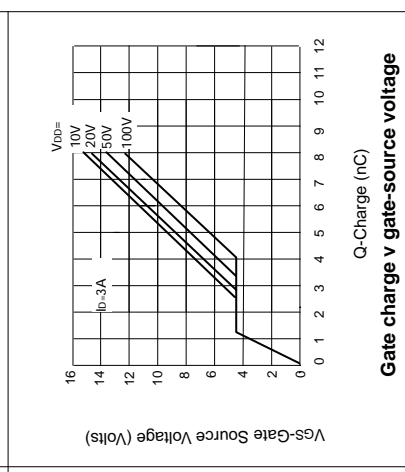
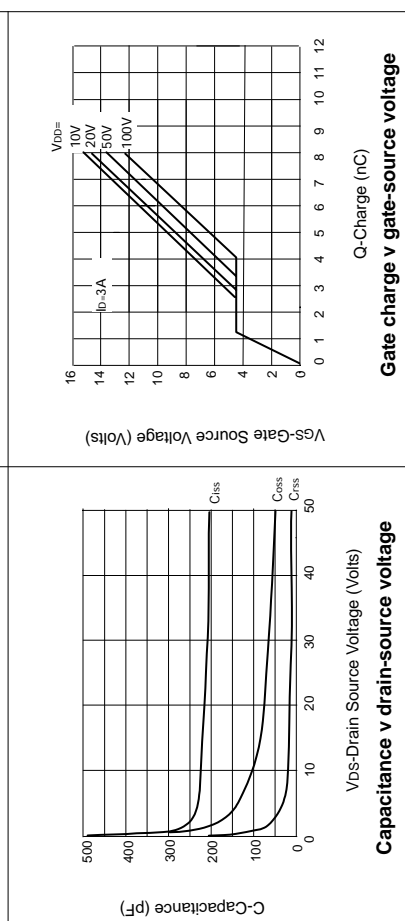
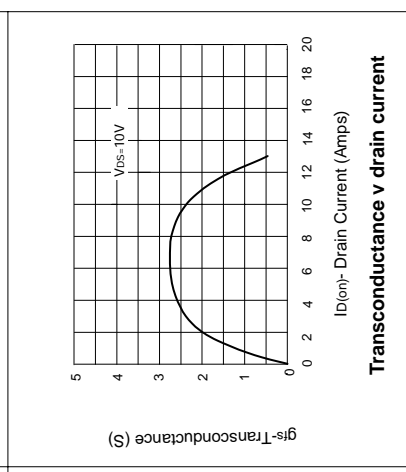
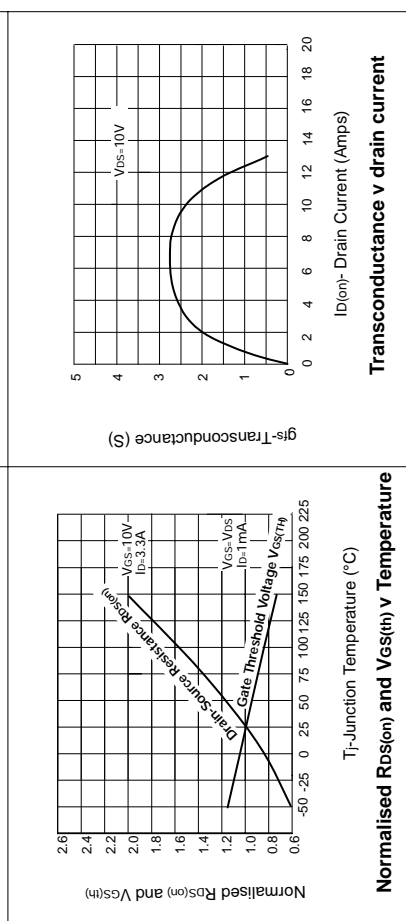
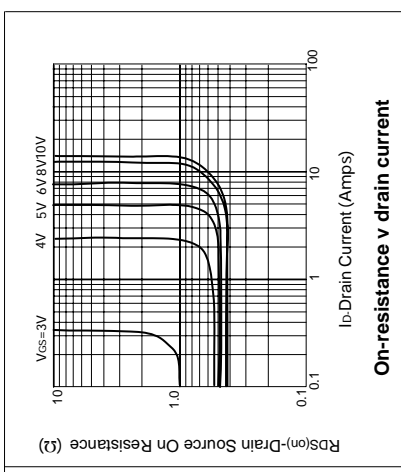
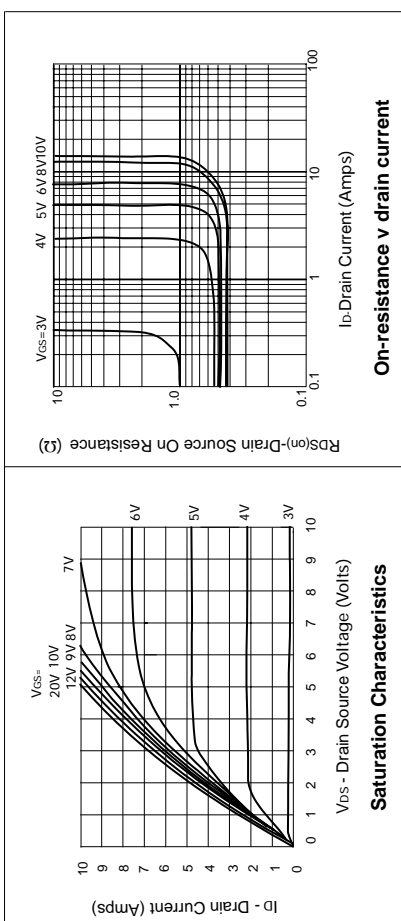
ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Drain-Source Breakdown Voltage	BV _{DSS}	100			V	I _D = 1mA, V _{GS} = 0V
Gate-Source Threshold Voltage	V _{GS(th)}	1		3	V	I _D = 1mA, V _{DS} = V _{GS}
Gate-Body Leakage	I _{GSS}			20	nA	V _{GS} = ± 20V, V _{DS} = 0V
Zero Gate Voltage Drain Current	I _{DSS}			10	μA	V _{DS} = 100V, V _{GS} = 0V
On-State Drain Current(1)	I _{D(on)}	9		100	μA	V _{DS} = 80V, V _{GS} = 0V, T = 125°C(2)
Static Drain-Source On-State Resistance (1)	R _{DS(on)}		0.4	0.54	Ω	V _{GS} = 10V, I _D = 3.3A
Forward Transconductance (1)	g _{fs}	0.6		0.75	Ω	V _{GS} = 5V, I _D = 1.5A
Input Capacitance (2)	C _{iss}			350	pF	V _{DS} = 25V, I _D = 3.3A
Common Source Output Capacitance (2)	C _{oss}			140	pF	V _{DS} = 25 V, V _{GS} = 0V, f = 1MHz
Reverse Transfer Capacitance (2)	C _{rss}			20	pF	
Turn-On Delay Time (2)(3)	t _{d(on)}			8	ns	
Rise Time (2)(3)	t _r			25	ns	V _{DD} = 25V, V _{GEN} = 10V, I _D = 3A
Turn-Off Delay Time (2)(3)	t _{d(off)}			30	ns	R _{GS} = 50Ω
Fall Time (2)(3)	t _f			16	ns	

(1) Measured under pulsed conditions. Width=300μs. Duty cycle ≤2% (2) Sample test.
(3) Switching times measured with 50Ω source impedance and <5ns rise time on a pulse generator
Spice parameter data is available upon request for this device

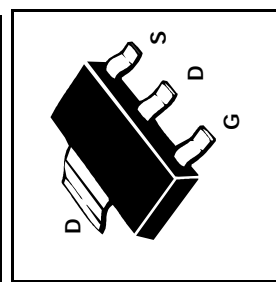
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ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
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Gate-Source Threshold Voltage	V _{GS(th)}	1		3	V	I _D =1mA, V _{DS} =V _{GS}
Gate-Body Leakage	I _{GSS}			20	nA	V _{GS} =± 20V, V _{DS} =0V
Zero Gate Voltage Drain Current	I _{DSS}			10	μA	V _{DS} =100V, V _{GS} =0V
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Turn-On Delay Time (2)(3)	t _{d(on)}			8	ns	
Rise Time (2)(3)	t _r			25	ns	V _{DD} =25V, V _{GEN} =10V, I _D =3A
Turn-Off Delay Time (2)(3)	t _{d(off)}			30	ns	R _{GS} =50Ω
Fall Time (2)(3)	t _f			16	ns	

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